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A PLEOMORPHIC BRANCHING ORGANISM ISOLATED FROM A CASE OF CHRONIC RHINITIS *

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A pleomorphic branching organism was isolated in pure culture twice from a case of ordinary chronic rhinitis, in a woman 25 years old.

It is an anaerobe, but occasionally a slight growth occurs aerobically. The colonies on goat blood-agar appear after six days' incubation at 35 C. as scarcely visible, clear, pin-point colonies. In dextrose agar stab cultures there is a faint hazy growth. No multiplication

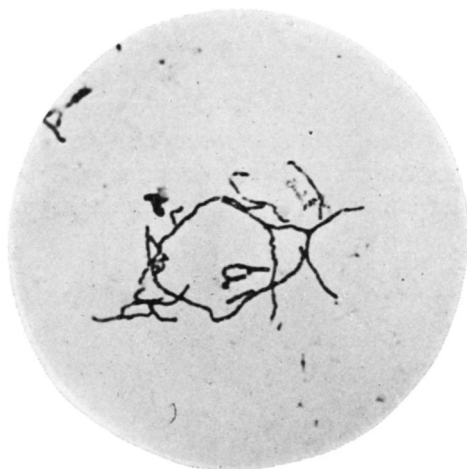


Fig. 1.—Pure culture, 4 days old. Carbol-gentian-violet. $\times 1200$.

occurs on plain, dextrose, alkaline or horse-serum agar slants or stabs, except dextrose, none on potato, in glycerin or in dextrose, ascites or plain broth with or without tissue. There was no odor from the cultures.

This organism measures one-half micron in width and from 2 to 30 or more microns in length, the average length being about 10. Morphologically, it is very pleomorphic, showing short and long, straight,

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slightly wavy and closely twisted forms. True branching is observed. Ring forms are sometimes seen at one extremity. The ends are generally rounded. Deeply staining bodies are found free, and also inside and attached to the ends and sides of the organism like buds. In old cultures the organism stains irregularly and appears larger than in young cultures. Long unstained spaces sometimes divide the filaments into several parts. Masses of wavy threads like a mycelium are seen in the fluid of condensation of blood-agar cultures.

The organism is gram-negative and not acid-fast. It stains well with methylene-blue, carbol-gentian-violet and carbol-fuchsin. It stains pink with Giemsa, as do the buds and free bodies.

With dark-field illumination some of the short forms are seen to be flexible and appear to move, although no flagella could be demonstrated by the Zettnow method. The long, wavy forms maintain their spiral form and are not motile.

The organism is not pathogenic when injected intraperitoneally into guinea-pigs.

This spiral branching organism is of interest because of the minuteness of its colonies and the evident ease with which it might be an undiscovered contamination, the hazy growth in solid media similar to that of many spirochetes, its general lack of motility and its staining pink with Giemsa.